



(11) **EP 2 290 399 A3**

(12) **EUROPEAN PATENT APPLICATION**

(88) Date of publication A3:
02.01.2013 Bulletin 2013/01

(51) Int Cl.:
G01S 15/89 (2006.01) **G01S 7/52 (2006.01)**
G06T 15/08 (2011.01) **A61B 8/00 (2006.01)**

(43) Date of publication A2:
02.03.2011 Bulletin 2011/09

(21) Application number: **10152638.2**

(22) Date of filing: **04.02.2010**

(84) Designated Contracting States:
AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO SE SI SK SM TR
Designated Extension States:
AL BA RS

(72) Inventor: **Kim, Sung Yun**
Gyeonggi-do 472-735 (KR)

(74) Representative: **Schmid, Wolfgang**
Lorenz & Kollegen
Patentanwälte Partnerschaftsgesellschaft
Alte Ulmer Strasse 2
89522 Heidenheim (DE)

(30) Priority: **17.08.2009 KR 20090075853**

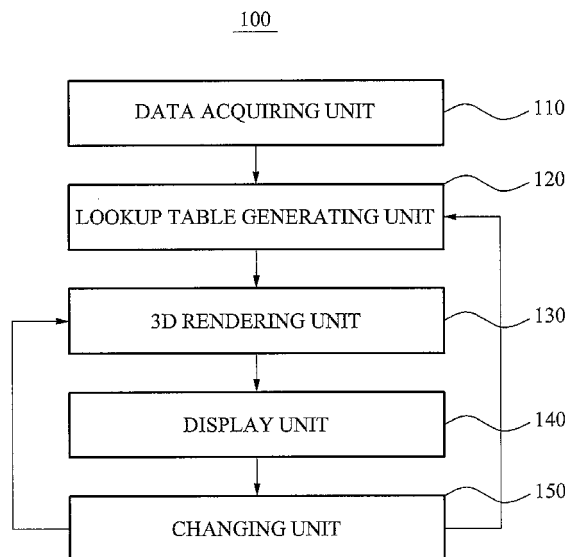
(71) Applicant: **Samsung Medison Co., Ltd.**
Nam-myun
Hongchun-gun
Kangwon do (KR)

(54) **Ultrasound system having variable lookup table and method for managing variable lookup table**

(57) Disclosed is an ultrasound system including a variable lookup table. The ultrasound system includes the variable lookup table, a data acquiring unit to acquire ultrasound data, a lookup table generating unit to generate

ate a variable lookup table according to the acquired ultrasound data, a three-dimensional (3D) rendering unit to perform 3D rendering with reference to the generated variable lookup table, and a display unit to display the 3D rendering result.

FIG. 1



EP 2 290 399 A3



EUROPEAN SEARCH REPORT

Application Number
EP 10 15 2638

DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (IPC)
X	JOHNNY KUO ET AL: "Interactive volume rendering of real-time three-dimensional ultrasound images", IEEE TRANSACTIONS ON ULTRASONICS, FERROELECTRICS AND FREQUENCY CONTROL, IEEE, US, vol. 54, no. 2, 1 February 2007 (2007-02-01), pages 313-318, XP011168521, ISSN: 0885-3010, DOI: 10.1109/TUFFC.2007.245 * page 313, right-hand column, line 31 - line 33 * * page 314, left-hand column, line 17 - line 35 * * page 315, left-hand column, line 4 - right-hand column, line 11 * * page 316, left-hand column, line 1 - line 18 * * page 316, right-hand column, line 10 - line 12 *	1-11	INV. G01S15/89 G01S7/52 G06T15/08 A61B8/00
			TECHNICAL FIELDS SEARCHED (IPC)
X	US 6 193 661 B1 (CLARK DAVID W [US] ET AL) 27 February 2001 (2001-02-27) * abstract; figures 1, 2 * * column 6, line 9 - line 25 *	1-11	G01S A61B G06T
A	US 2004/147841 A1 (MCLAUGHLIN GLEN [US] ET AL) 29 July 2004 (2004-07-29) * figures 11A, 11B, 12B * * paragraph [0096] - paragraph [0101] * * paragraph [0130] *	1-11	
The present search report has been drawn up for all claims			
Place of search Munich		Date of completion of the search 22 November 2012	Examiner Knoll, Bernhard
CATEGORY OF CITED DOCUMENTS X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document		T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document	

1
EPO FORM 1503 03.02 (P04C01)

**ANNEX TO THE EUROPEAN SEARCH REPORT
ON EUROPEAN PATENT APPLICATION NO.**

EP 10 15 2638

This annex lists the patent family members relating to the patent documents cited in the above-mentioned European search report. The members are as contained in the European Patent Office EDP file on The European Patent Office is in no way liable for these particulars which are merely given for the purpose of information.

22-11-2012

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
US 6193661 B1	27-02-2001	NONE	

US 2004147841 A1	29-07-2004	US 6685645 B1	03-02-2004
		US 2004147841 A1	29-07-2004
		US 2007213615 A1	13-09-2007
		US 2010268082 A1	21-10-2010
		US 2010268083 A1	21-10-2010

EPO FORM P0469

For more details about this annex : see Official Journal of the European Patent Office, No. 12/82

专利名称(译)	具有变量查找表的超声系统和用于管理变量查找表的方法		
公开(公告)号	EP2290399A3	公开(公告)日	2013-01-02
申请号	EP2010152638	申请日	2010-02-04
申请(专利权)人(译)	MEDISON CO. , LTD.		
当前申请(专利权)人(译)	三星MEDISON CO. , LTD.		
[标]发明人	KIM SUNG YUN		
发明人	KIM, SUNG YUN		
IPC分类号	G01S15/89 G01S7/52 G06T15/08 A61B8/00		
CPC分类号	G01S15/8993 A61B8/466 A61B8/483 G01S7/52044 G06T15/08		
代理机构(译)	SCHMID , WOLFGANG		
审查员(译)	KNOLL伯恩哈德		
优先权	1020090075853 2009-08-17 KR		
其他公开文献	EP2290399A2		
外部链接	Espacenet		

摘要(译)

公开了一种包括变量查找表的超声系统。超声系统包括变量查找表，用于获取超声数据的数据获取单元，用于根据所获取的超声数据生成变量查找表的查找表生成单元，用于执行3D渲染的三维（3D）渲染单元引用生成的变量查找表，以及显示3D渲染结果的显示单元。

